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FILE 'ENCOMPPAT2' ACCESS NOT AUTHORIZED

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=> s ((DNA or polynucleotide or nucleic(w)acid)(6a)(purification or isolation)) and (glass or silica)

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44	FILE BIOENG
191	FILE BIOSIS
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        75   FILE PROMT
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      1355   FILE USPAT2
         1   FILE VETU
       197   FILE WPIDS
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         2   FILE WPIFV
       197   FILE WPINDEX
         1   FILE CASREACT
        15   FILE DPCI
      2588   FILE EPFULL
 73 FILES SEARCHED...
         2   FILE FRFULL
       135   FILE GBFULL
        67   FILE INPADOC
        12   FILE JAPIO
         5   FILE KOREAPAT
         1   FILE PAPERCHEM2
        58   FILE PATDPAFULL
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     10262   FILE PCTFULL
         2   FILE RUSSIAPAT

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L1   QUE ((DNA OR POLYNUCLEOTIDE OR NUCLEIC(W) ACID)(6A)(PURIFICATION OR ISOLAT
        ION)) AND (GLASS OR SILICA)

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L2 813 ((DNA OR POLYNUCLEOTIDE OR NUCLEIC(W) ACID)(6A)(PURIFICATION OR ISOLATION)) AND (GLASS OR SILICA)

=> s L2 and not py>1986
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=> s L2 not py>1986
L3 53 L2 NOT PY>1986

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PROCESSING COMPLETED FOR L3
L4 32 DUP REM L3 (21 DUPLICATES REMOVED)

=> d L4 1-32 ti

L4 ANSWER 1 OF 32 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
DUPLICATE 1
TI A NEW RAPID PROCEDURE FOR THE PREPARATION OF PLASMID DNA.

L4 ANSWER 2 OF 32 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
DUPLICATE 2
TI RAPID LARGE-SCALE **PURIFICATION** OF PLASMID **DNA** BY
MEDIUM OR LOW-PRESSURE GEL FILTRATION APPLICATION CONSTRUCTION OF
THERMOAMPLIFIABLE EXPRESSION VECTORS.

L4 ANSWER 3 OF 32 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
DUPLICATE 3
TI ALKALINE EXTRACTION-**GLASS** POWDER TREATMENT METHOD FOR
ISOLATION AND **PURIFICATION** OF PLASMID **DNA.**

L4 ANSWER 4 OF 32 MEDLINE on STN
TI Polymer supported DNA synthesis using hydroxybenzotriazole activated
phosphotriester intermediates.

L4 ANSWER 5 OF 32 CAPLUS COPYRIGHT 2006 ACS on STN DUPLICATE 4
TI Polymer support oligonucleotide synthesis. XVIII: use of
β-cyanoethyl-N,N-dialkylamino-/N-morpholino phosphoramidite of
deoxynucleosides for the synthesis of **DNA** fragments simplifying
deprotection and **isolation** of the final product

L4 ANSWER 6 OF 32 CAPLUS COPYRIGHT 2006 ACS on STN
TI Photoreaction **DNA**-psoralen: **isolation** of a new
fluorescent 4',5'-cycloadduct with thymine formed with low yield

L4 ANSWER 7 OF 32 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
DUPLICATE 5
TI A SIMPLE AND RAPID PROCEDURE FOR THE **PURIFICATION** OF PLASMID
DNA USING REVERSE PHASE C-18 **SILICA** BEADS.

L4 ANSWER 8 OF 32 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI STABILITY OF IMMOBILIZED HIGH MOLECULAR WEIGHT RNA AND ITS UTILIZATION FOR
HYBRIDIZATION.

L4 ANSWER 9 OF 32 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
DUPLICATE 6
TI A RAPID PROCEDURE FOR THE **ISOLATION** OF YEAST
SACCHAROMYCES-CEREVISIAE MITOCHONDRIAL **DNA** SUITABLE FOR
RESTRICTION FRAGMENT ANALYSIS.

L4 ANSWER 10 OF 32 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on
STN DUPLICATE 7
TI **ISOLATION** AND VISUALIZATION OF ALKALI STABLE PROTEIN **DNA**
COMPLEXES.

L4 ANSWER 11 OF 32 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 8
TI **ISOLATION** OF **DNA** FROM SINGLE MICRO SURGICALLY EXCISED BANDS OF POLYTENE CHROMOSOMES OF CHIRONOMUS-TENTANS.

L4 ANSWER 12 OF 32 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 9
TI A PROCEDURE FOR THE LARGE-SCALE **ISOLATION** OF HIGHLY PURIFIED PLASMID **DNA** USING ALKALINE EXTRACTION AND BINDING TO **GLASS** POWDER.

L4 ANSWER 13 OF 32 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 10
TI DISTRIBUTION OF TIGHTLY BOUND PROTEINS IN THE CHICKEN OV ALBUMIN GENE REGION.

L4 ANSWER 14 OF 32 CAPLUS COPYRIGHT 2006 ACS on STN
TI **Isolation** of **DNA** and **DNA** recombinants from maize

L4 ANSWER 15 OF 32 CAPLUS COPYRIGHT 2006 ACS on STN
TI Further **purification** of an inhibitory factor for **DNA** synthesis in regenerating rat liver

L4 ANSWER 16 OF 32 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI CHLOROPLAST **DNA ISOLATION** PURITY ACHIEVED WITHOUT NUCLEASE DIGESTION.

L4 ANSWER 17 OF 32 CAPLUS COPYRIGHT 2006 ACS on STN
TI Influence of hydrodynamic effects on DNA secondary structure in solutions

L4 ANSWER 18 OF 32 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 11
TI SINGLE STEP **ISOLATION** OF TOTAL **DNA** AND RNA BY NUCLEAR LYSATE CHROMATOGRAPHY ON **SILICA** GEL.

L4 ANSWER 19 OF 32 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 12
TI PREPARATIVE AND ANALYTICAL **PURIFICATION** OF **DNA** FROM AGAROSE.

L4 ANSWER 20 OF 32 CAPLUS COPYRIGHT 2006 ACS on STN
TI Preparation of large molecular weight DNA from the fungus Aspergillus nidulans

L4 ANSWER 21 OF 32 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 13
TI RAPID PURIFICATION OF AN RNA TUMOR VIRUS AND PROTEINS BY HIGH PERFORMANCE STERIC EXCLUSION CHROMATOGRAPHY ON POROUS **GLASS** BEAD COLUMNS.

L4 ANSWER 22 OF 32 CAPLUS COPYRIGHT 2006 ACS on STN
TI A simple method for the large-scale preparation of mitochondria from microorganisms

L4 ANSWER 23 OF 32 CAPLUS COPYRIGHT 2006 ACS on STN
TI New procedure for extracting deoxyribonucleic acid from yeast

L4 ANSWER 24 OF 32 CAPLUS COPYRIGHT 2006 ACS on STN
TI **Isolation** and characterization of an active **DNA** -binding metabolite of benzo(a)pyrene from hamster liver microsomal incubation system

L4 ANSWER 25 OF 32 CAPLUS COPYRIGHT 2006 ACS on STN

TI Large scale purification of Escherichia coli deoxyribonucleic acid-dependent ribonucleic acid polymerase

L4 ANSWER 26 OF 32 CAPLUS COPYRIGHT 2006 ACS on STN
TI E.S.R. study of free-radical states in DNA during low-temperature radiolysis

L4 ANSWER 27 OF 32 CAPLUS COPYRIGHT 2006 ACS on STN
TI **Purification** of **DNA** from Escherichia coli

L4 ANSWER 28 OF 32 CAPLUS COPYRIGHT 2006 ACS on STN
TI Isolation of deoxyribonucleic acid from mycobacteria

L4 ANSWER 29 OF 32 CAPLUS COPYRIGHT 2006 ACS on STN
TI DNA polymerase from T2-infected Escherichia coli

L4 ANSWER 30 OF 32 CAPLUS COPYRIGHT 2006 ACS on STN
TI Regulatory steps in the replication of mammalian cell nuclei

L4 ANSWER 31 OF 32 CAPLUS COPYRIGHT 2006 ACS on STN
TI Preparation of a highly purified and fibrous deoxyribonucleic acid from Bacillus subtilis var amyloliquefaciens Fukumoto K-49

L4 ANSWER 32 OF 32 CAPLUS COPYRIGHT 2006 ACS on STN
TI Isolation and properties of deoxyribonucleic acid from mammalian sperm

=> d L4 2 3 7 9 12 14 19 ti abs bib

L4 ANSWER 2 OF 32 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
DUPLICATE 2
TI RAPID LARGE-SCALE **PURIFICATION** OF PLASMID **DNA** BY MEDIUM OR LOW-PRESSURE GEL FILTRATION APPLICATION CONSTRUCTION OF THERMOAMPLIFIABLE EXPRESSION VECTORS.
AB This study describes a new method of plasmid **DNA** **purification** which is fast and reliable enough for most purposes in recombinant DNA technology. The present method does not require the use of toxic chemicals, such as phenol or ethidium bromide, costly ultracentrifugation procedures or other processes which can modify the supercoiled structure of the plasmids, such as adsorption on **glass** fiber. This method is based on the principle of gel filtration chromatography at low pressure (1 bar) or medium pressure (5-10 bar), using Sephacryl S1000 or Superose 6B. It permits recovery of plasmids in preparative quantities (from 300 μg to 4 mg) exempt from RNA, DNA and protein contamination, and is suitable for various common genetic engineering procedures immediately after purification. To test the reliability of the technique and the degree of purification, the plasmids were used to contruct thermoamplifiable vectors, carrying the lacUV5 promoter an the 5' end of the β-galactosidase gene with a single EcoR1 site in each of the 3 possible translational phases. This set of vectors is designed for the expression of foreign genes as hybrid proteins in Escherichia coli.
AN 1985:361240 BIOSIS
DN PREV198580031232; BA80:31232
TI RAPID LARGE-SCALE **PURIFICATION** OF PLASMID **DNA** BY MEDIUM OR LOW-PRESSURE GEL FILTRATION APPLICATION CONSTRUCTION OF THERMOAMPLIFIABLE EXPRESSION VECTORS.
AU VO-QUANG T [Reprint author]; MALPIECE Y; BUFFARD D; KAMINSKI P A; VIDAL D; STROSBERG A D
CS LAB D'IMMUNOCYTOCHIMIE, INST PASTEUR, 75015 PARIS, FRANCE
SO Bioscience Reports, (1985) Vol. 5, No. 2, pp. 101-112.
CODEN: BRPTDT. ISSN: 0144-8463.
DT Article
FS BA
LA ENGLISH

L4 ANSWER 3 OF 32 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
DUPLICATE 3
TI ALKALINE EXTRACTION-**GLASS** POWDER TREATMENT METHOD FOR **ISOLATION** AND **PURIFICATION** OF PLASMID **DNA.**
AB An alkaline extraction, **glass** powder treatment method was tested for **isolation** and **purification** of plasmid **DNA** [Bacillus subtilis]. Plasmid DNA was easily purified by this method. The yields of purified pUB110, pBD64, pSAC1,2 and pBR322 DNA were 470, 550, 130 and 975 μg, respectively, from 1 l of culture. This method will be useful for the **purification** of plasmid **DNA** from various bacteria.
AN 1985:406628 BIOSIS
DN PREV198580076620; BA80:76620
TI ALKALINE EXTRACTION-**GLASS** POWDER TREATMENT METHOD FOR **ISOLATION** AND **PURIFICATION** OF PLASMID **DNA.**
AU MARUO B [Reprint author]; TOJO T
CS LAB GENERAL MICROBIOLOGY, COLL AGR AND VET MED, NIHON UNIV
SO Bulletin of the College of Agriculture and Veterinary Medicine Nihon University, (1985) No. 42, pp. 57-61.
CODEN: NIPDAD. ISSN: 0078-0839.
DT Article
FS BA
LA JAPANESE

L4 ANSWER 7 OF 32 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
DUPLICATE 5
TI A SIMPLE AND RAPID PROCEDURE FOR THE **PURIFICATION** OF PLASMID **DNA** USING REVERSE PHASE C-18 **SILICA** BEADS.
AB A simple and efficient procedure for the rapid **isolation** of [bacterial] plasmid **DNA** free of chromosomal DNA and with only minor contamination with RNA is described. The protocol is a modification of the boiling method described by Holmes and Quigley and utilizes C18 reverse-phase **silica** beads for final concentration and **purification** of plasmid **DNA.** The entire procedure can be carried out in 1 day and does not require the use of phenol or CsCl gradients, which require considerable labor and may sometimes cause nicking and lower recoveries of supercoiled DNA. The plasma DNA obtained by this method retains biological activity, is supercoiled and is suitable for restriction and DNA sequence analysis.
AN 1984:292026 BIOSIS
DN PREV198478028506; BA78:28506
TI A SIMPLE AND RAPID PROCEDURE FOR THE **PURIFICATION** OF PLASMID **DNA** USING REVERSE PHASE C-18 **SILICA** BEADS.
AU SPARKS R B [Reprint author]; ELDER J H
CS SCRIPPS CLINIC RESEARCH FOUNDATION, DEP MOLECULAR BIOL, LA JOLLA, CALIF 92037, USA
SO Analytical Biochemistry, (1983) Vol. 135, No. 2, pp. 345-348.
CODEN: ANBCA2. ISSN: 0003-2697.
DT Article
FS BA
LA ENGLISH

L4 ANSWER 9 OF 32 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
DUPLICATE 6
TI A RAPID PROCEDURE FOR THE **ISOLATION** OF YEAST SACCHAROMYCES-CEREVISIAE MITOCHONDRIAL **DNA** SUITABLE FOR RESTRICTION FRAGMENT ANALYSIS.
AB A method for the rapid **isolation** of mitochondrial **DNA** [mtDNA] from the yeast S. cerevisiae is described. Cells are first disrupted by vortexing with **glass** beads and the mitochondrial DNA is then extracted directly from the cell lysate by poly-L-lysine-kieselguhr-exchange chromatography. The method is unique from most other published procedures in that there is no requirement for the isolation of either a crude or purified mitochondrial that there is no

requirement for the isolation of either a crude or purified mitochondrial preparation. Mitochondrial DNA isolated by this procedure yields restriction endonuclease [Hha I and Bam HI] fragment patterns identical to those obtained from DNA isolated by other previously reported procedures.
AN 1983:310329 BIOSIS
DN PREV198376067821; BA76:67821
TI A RAPID PROCEDURE FOR THE **ISOLATION** OF YEAST SACCHAROMYCES-CEREVISIAE MITOCHONDRIAL **DNA** SUITABLE FOR RESTRICTION FRAGMENT ANALYSIS.
AU HWANG-LEE L [Reprint author]; BLAMIRE J; COTTRELL S F
CS DEP BIOL, BROOKLYN COLL CITY UNIV NEW YORK, BROOKLYN, NEW YORK 11210, USA
SO Analytical Biochemistry, (1983) Vol. 128, No. 1, pp. 47-53. CODEN: ANBCA2. ISSN: 0003-2697.
DT Article
FS BA
LA ENGLISH

L4 ANSWER 12 OF 32 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 9
TI A PROCEDURE FOR THE LARGE-SCALE **ISOLATION** OF HIGHLY PURIFIED PLASMID **DNA** USING ALKALINE EXTRACTION AND BINDING TO **GLASS** POWDER.
AB A preparative procedure for obtaining highly purified plasmid [pBR322] DNA from bacterial [Escherichia coli] cells is described. The method is adapted from an earlier procedure, which gave partially purified plasmid in a form suitable for rapid screening of a large number of samples. In the present method, all detectable RNA, chromosomal DNA and protein are removed without the use of enzymes, phenol extraction, dialysis or equilibrium centrifugation. Binding of plasmid DNA to **glass** powder in the presence of 6 M sodium perchlorate is used for the final purification step.
AN 1983:178838 BIOSIS
DN PREV198375028838; BA75:28838
TI A PROCEDURE FOR THE LARGE-SCALE **ISOLATION** OF HIGHLY PURIFIED PLASMID **DNA** USING ALKALINE EXTRACTION AND BINDING TO **GLASS** POWDER.
AU MARKO M A [Reprint author]; CHIPPERFIELD R; BIRNBOIM H C
CS RADIATION BIOL BRANCH, HEALTH SCI DIV, CHALK RIVER NUCLEAR LAB, CHALK RIVER, ONTARIO KOJ 1J0, CANADA
SO Analytical Biochemistry, (1982) Vol. 121, No. 2, pp. 382-387. CODEN: ANBCA2. ISSN: 0003-2697.
DT Article
FS BA
LA ENGLISH

L4 ANSWER 14 OF 32 CAPLUS COPYRIGHT 2006 ACS on STN
TI **Isolation** of **DNA** and **DNA** recombinants from maize
AB Corn leaf tissue was washed in 5% bleach, rinsed, dried, and frozen in liquid N2. The frozen tissue was then ground in grinding buffer, and the powdered suspension filtered through 60 μm mesh or 3 layers Miracloth. Nuclei were pelleted by centrifugation at 350 g, and the pellet was resuspended in cold lysis buffer. Saturate CsCl was added. Centrifugation at 17,000 g for 15-30 min removed the insol. proteins and polysaccharides. Ethidium bromide was then added to the supernatant fraction (300 μg/mL) followed by centrifugation for 15-20 h at 100,000 g. The fluorescent orange ethidium-DNA band was then removed and the ethidium removed by BuOH extraction, followed by buffer dialysis. The DNA was precipitated with NaOAc and EtOH and collected by spooling on a **glass** rod or by pelleting in a centrifuge. Depending on the starting tissue, 5-20 μg DNA/g fresh weight tissue was isolated. DNA isolated via 1 CsCl gradient has a 260/280 nm absorbance ratio of 1.6-1.8 and is mostly >60 kilobases in length. The DNA showed no inhibition of endonuclease activity and no nuclease activity. Mitochondrial DNA contamination was 0.2-0.5%; chloroplast DNA

contamination was 2-10%.
AN 1982:578198 CAPLUS
DN 97:178198
TI **Isolation** of **DNA** and **DNA** recombinants from maize
AU Rivin, Carol J.; Zimmer, Elizabeth A.; Walbot, Virginia
CS Dep. Biol. Sci., Stanford Univ., Stanford, CA, 94305-2493, USA
SO Maize Biol. Res. (1982), 161-4. Editor(s): Sheridan, William F. Publisher: Plant Mol. Biol. Assoc., Charlottesville, Va. CODEN: 48QJAD
DT Conference
LA English

L4 ANSWER 19 OF 32 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 12
TI PREPARATIVE AND ANALYTICAL **PURIFICATION** OF **DNA** FROM AGAROSE.
AB Two procedures were developed for removing DNA from agarose after electrophoretic separation of DNA fragments according to size. Both involve dissolving the DNA-containing agarose in NaI. The preparative technique uses binding of DNA to **glass** in the presence of NaI. The method is rapid and convenient, and DNA of all MW ranges can be recovered in high yield and without degradation. The DNA is free of agarose and remains susceptible to digestion by restriction enzymes. The analytical technique uses selective precipitation of DNA with acetone and was adapted to molecular hybridization scans of sequences in agarose gels. The sequence-monitoring system is quantitative, directly measuring the proportion of the probe complementary to a given DNA fragment and vice versa. It is especially suitable for analyzing restriction enzyme digests of DNA in mapping experiments.
AN 1979:212866 BIOSIS
DN PREV197968015370; BA68:15370
TI PREPARATIVE AND ANALYTICAL **PURIFICATION** OF **DNA** FROM AGAROSE.
AU VOGELSTEIN B [Reprint author]; GILLESPIE D
CS SECT MOL HYBRID, LAB TUMOR CELL BIOL, NATL CANCER INST, BETHESDA, MD 20014, USA
SO Proceedings of the National Academy of Sciences of the United States of America, (1979) Vol. 76, No. 2, pp. 615-619. CODEN: PNASA6. ISSN: 0027-8424.
DT Article
FS BA
LA ENGLISH

=> s L2 not py>1992
L5 131 L2 NOT PY>1992

=> dup rem L5
PROCESSING COMPLETED FOR L5
L6 71 DUP REM L5 (60 DUPLICATES REMOVED)

=> s L6 and agarose
L7 7 L6 AND AGAROSE

=> d L7 1-7 ti abs bib

L7 ANSWER 1 OF 7 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI EXTRACTION OF NUCLEIC ACIDS FROM **AGAROSE** GEL A QUANTITATIVE AND QUALITATIVE COMPARISON OF FOUR DIFFERENT METHODS.
AB **Agarose** gel electrophoresis is commonly used to separate different species of nucleic acids. We compare four different methods of extraction which are commonly used. These methods include buffer extraction, electroelution, **glass** bead extraction and extraction of DNA from low-melting **agarose.** The results show that DNA

extracted by these four methods is comparable in their ligability to the PMT 21 vectors and the plasmids with insert can be used for subsequent transfections of competent bacteria. There is a higher yield for buffer extraction and electroelution when compared with **glass** bead extraction and low melting **agarose** ($p < 0.05$). To conclude, the four commonly used methods for **DNA isolation** are comparable qualitatively. But the simplest method, namely buffer extraction, has the highest yield.

AN 1990:517315 BIOSIS
DN PREV199090134591; BA90:134591
TI EXTRACTION OF NUCLEIC ACIDS FROM **AGAROSE** GEL A QUANTITATIVE AND QUALITATIVE COMPARISON OF FOUR DIFFERENT METHODS.
AU PUN K K [Reprint author]; KAM W
CS DEP MEDICINE, LAB MEDICINE, BIOPHYSICS BIOCHEM, UNIV CALIFORNIA, SAN FRANCISCO, SF, CALIF 94123, USA
SO Preparative Biochemistry, (1990) Vol. 20, No. 2, pp. 123-136.
CODEN: PRBCBQ. ISSN: 0032-7484.
DT Article
FS BA
LA ENGLISH
ED Entered STN: 19 Nov 1990
Last Updated on STN: 19 Nov 1990

L7 ANSWER 2 OF 7 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI **ISOLATION** OF **DNA** FROM YEASTS.
AB Methods are described that allow DNA to be prepared from widely different yeasts (Candida utilis, Saccharomyces cerevisiae, and Schizosaccharomyces pombe). The methods are reliably reproducible, and the DNA obtained is of appropriate quality for the construction of gene libraries (upper limit of size range consistently 50-150 kbp). In method A, yeast cells are converted into spheroplasts by treatment with a highly purified mixture of enzymes from Trichoderma harzianum, the spheroplasts are lysed in a lauroylsarcosinate/EDTA buffer, and the lysate is incubated with proteinase K and then directly centrifuged through a cesium trifluoroacetate gradient. DNA is recovered from the appropriate fractions by ethanol precipitation, and the redissolved precipitate is incubated with ribonuclease. For the rest of the isolation, two protocols are given, one avoiding and one including phenol/chloroform extraction. In this way, DNA up to about 150 kbp in size can be obtained. In method B, spheroplasts are not made. Yeast cells are broken by grinding under liquid nitrogen and are then worked up in a manner similar to method A, protocol 2. Subsequent steps depend on the purpose for which the DNA is required. Traditional methods of sucrose or salt density gradient centrifugation or **agarose** gel electrophoresis are applicable for size selection. A sodium iodide/**silica** matrix technique allows fast and effective DNA recovery from **agarose** gels.

AN 1989:244858 BIOSIS
DN PREV198987125923; BA87:125923
TI **ISOLATION** OF **DNA** FROM YEASTS.
AU MANN W [Reprint author]; JEFFERY J
CS DEP BIOCHEM, UNIV ABERDEEN, MARISCHAL COLL, ABERDEEN AB9 1AS, UK
SO Analytical Biochemistry, (1989) Vol. 178, No. 1, pp. 82-87.
CODEN: ANBCA2. ISSN: 0003-2697.
DT Article
FS BA
LA ENGLISH
ED Entered STN: 20 May 1989
Last Updated on STN: 20 May 1989

L7 ANSWER 3 OF 7 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI A METHOD FOR HORIZONTAL POLYACRYLAMIDE SLAB GEL ELECTROPHORESIS.
AB We present a simplified method of preparation of polyacrylamide gels which is totally analogous to the procedure now widely used to pour and run horizontal **agarose** gels. The acrylamide is poured into an open air gel mold consisting of a **glass** plate with a masking tape

border and a comb. It is subsequently run in a submarine horizontal electrophoresis apparatus. The electrophoretic mobility and resolution of DNA fragments obtained in such gels are identical to results obtained with gels poured and run in the vertical configuration. Numerous advantages of horizontal polyacrylamide gel electrophoresis are discussed.

AN 1989:240971 BIOSIS
DN PREV198987122036; BA87:122036
TI A METHOD FOR HORIZONTAL POLYACRYLAMIDE SLAB GEL ELECTROPHORESIS.
AU BELLOMY G R [Reprint author]; RECORD M T JR
CS DEP BIOCHEM, UNIV WISCONSIN-MADISON, MADISON, WIS 53706, USA
SO Biotechniques, (1989) Vol. 7, No. 1, pp. 16, 19-21.
CODEN: BTNQDO. ISSN: 0736-6205.
DT Article
FS BA
LA ENGLISH
ED Entered STN: 20 May 1989
Last Updated on STN: 20 May 1989

L7 ANSWER 4 OF 7 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI EXTRACTION FROM NATURAL PLANKTONIC MICROORGANISMS OF DNA SUITABLE FOR MOLECULAR BIOLOGICAL STUDIES.
AB We developed a simple technique for the high-yield extraction of purified DNA from mixed populations of natural planktonic marine microbes (primarily bacteria). This is a necessary step for several molecular biological approaches to the study of microbial communities in nature. The microorganisms from near-shore marine and brackish water samples, ranging in volume from 8 to 40 liters, were collected on 0.22-μ-pore-size fluorocarbon-based filters, after prefiltration through **glass** fiber filters, to remove most of the eucaryotes. DNA was extracted directly from the filters in 1% sodium dodecyl sulfate that was heated to 95 to 100° C for 1.5 to 2 min. THis procedure lysed essentially all the bacteria and did not significantly denature the DNA. The DNA was purified by phenol extraction, and precautions were taken to minimize shearing. **Agarose** gel electrophoresis showed that most of the final preparation had a large molecular size (> 23 kilobase pairs). The DNA was sufficiently pure to allow complete digestion by the restriction endonuclease Sau3AI and ligation to vector DNA. In a sample in which the extracted DNA was quantified by binding to the dye Hoechst H333258, DNA was quantitatively extracted, and 45% of the initially extracted **DNA** was recovered after **purification** . Final yields were a few micrograms of DNA per liter of seawater and were roughly 25 to 50% of the total bacterial DNA in the sample. Alternatives to the initial harvest by filtration method, including continuous-flow centrifugation and thin-channel or hollow-fiber concentration followed by centrifugation, were less efficient than filtration in terms of both time and yield, largely because of the difficulty of centrifuging the very small bacteria typical of marine plankton. These methods were judged to be less appropriate for studies of natural populations as they impose a strong selection for the larger bacteria.

AN 1988:330863 BIOSIS
DN PREV198886037414; BA86:37414
TI EXTRACTION FROM NATURAL PLANKTONIC MICROORGANISMS OF DNA SUITABLE FOR MOLECULAR BIOLOGICAL STUDIES.
AU FUHRMAN J A [Reprint author]; COMEAU D E; HAGSTROM A; CHAN A M
CS MARINE SCI RES CENT, STATE UNIV NEW YORK, STONY BROOK, NY 11794, USA
SO Applied and Environmental Microbiology, (1988) Vol. 54, No. 6, pp. 1426-1429.
CODEN: AEMIDF. ISSN: 0099-2240.
DT Article
FS BA
LA ENGLISH
ED Entered STN: 21 Jul 1988
Last Updated on STN: 21 Jul 1988

L7 ANSWER 5 OF 7 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
TI PREPARATIVE AND ANALYTICAL **PURIFICATION** OF **DNA** FROM **AGAROSE.**
AB Two procedures were developed for removing DNA from **agarose** after electrophoretic separation of DNA fragments according to size. Both involve dissolving the DNA-containing **agarose** in NaI. The preparative technique uses binding of DNA to **glass** in the presence of NaI. The method is rapid and convenient, and DNA of all MW ranges can be recovered in high yield and without degradation. The DNA is free of **agarose** and remains susceptible to digestion by restriction enzymes. The analytical technique uses selective precipitation of DNA with acetone and was adapted to molecular hybridization scans of sequences in **agarose** gels. The sequence-monitoring system is quantitative, directly measuring the proportion of the probe complementary to a given DNA fragment and vice versa. It is especially suitable for analyzing restriction enzyme digests of DNA in mapping experiments.
AN 1979:212866 BIOSIS
DN PREV197968015370; BA68:15370
TI PREPARATIVE AND ANALYTICAL **PURIFICATION** OF **DNA** FROM **AGAROSE.**
AU VOGELSTEIN B [Reprint author]; GILLESPIE D
CS SECT MOL HYBRID, LAB TUMOR CELL BIOL, NATL CANCER INST, BETHESDA, MD 20014, USA
SO Proceedings of the National Academy of Sciences of the United States of America, (1979) Vol. 76, No. 2, pp. 615-619.
CODEN: PNASA6. ISSN: 0027-8424.
DT Article
FS BA
LA ENGLISH

L7 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN
TI Stepwise synthesis of oligonucleotides. XXXV. Native and immobilized Thermus thermophilus polynucleotide phosphorylase in oligoribonucleotide synthesis
AB **Polynucleotide** phosphorylase **isolation** from T. thermophylus or from protein fractions obtained during various stages of purification of elongation factors (Garber, M. B., Reshetnikova, L. S., 1982), immobilization on CNBr-activated Aganose and macroporous **glass** modified with (3,3-diethoxypropyl)triethoxysilane, and preparation of oligoribonucleotides (among them the structural analog of anhcodon fragment 34-37 of yeast phenylalanine-tRNA). The native and immobilized enzyme preparation, in contrast to the title enzyme from Escherichia coli and Micrococcus luteus, effectively catalyzed the addition of adenylic and guanylic acids to the oligonucleotide primer O tri-, tetra-, and pentanucleotides containing 3'-terminal guanosine and adenosine residues were synthesized.
AN 1990:528912 CAPLUS
DN 113:128912
TI Stepwise synthesis of oligonucleotides. XXXV. Native and immobilized Thermus thermophilus polynucleotide phosphorylase in oligoribonucleotide synthesis
AU Sedel'nikova, E. A.; Smolyaninova, O. A.; Zhenodarova, S. M.
CS Inst. Biol. Phys., Pushchino, USSR
SO Bioorganicheskaya Khimiya (1990), 16(5), 617-24
CODEN: BIKHD7; ISSN: 0132-3423
DT Journal
LA Russian

L7 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2006 ACS on STN
TI Composition for selective adsorption of biopolymers and method for manufacturing it
AB A composition for selective adsorption of a biopolymer from a mixture of biopolymers comprises a solid carrier coated with a plastic film and a material to which the biopolymer adsorbs. The composition is prepared by

contacting the carrier with a suspension of the plastic in an organic solvent, removing the solvent, and contacting the resulting coated carrier with adsorbent followed by heating at 60-180°, preferably 70-120°. Thus, a plastic Eppendorf centrifuge tube was filled with a CHCl3 suspension of Vestoplast-508 (an α-olefin copolymer). Upon decantation of the mixture, a plastic film remained on the tube. This film was contacted with an ion-exchange resin, which was then baked on at 74°. The resulting coated tube was used to prepare a plasmid from Escherichia coli. The alkaline lysis method was employed, but phenol extraction was unnecessary. The prepared plasmid was as pure as that prepared by HPLC.

AN 1989:453738 CAPLUS
DN 111:53738
TI Composition for selective adsorption of biopolymers and method for manufacturing it
IN Colpan, Metin; Piotrowiak, Ralf
PA DIAGEN Institut fuer Molekularbiologische Diagnostik G.m.b.H., Fed. Rep. Ger.
SO Ger. Offen., 5 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

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PI	DE 3717209	A1	19881201	DE 1987-3717209	19870522
	DE 3717209	C2	19910228		
PRAI	DE 1987-3717209		19870522		

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